

Date: Thursday, 2/9/2006 2:01:05 PM  
 User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : WHEEL ASSEMBLY  
 Job Number : 25804  
 Estimate Number : 12100  
 P.O. Number : N/A Part Number : D3397041  
 This Issue : 2/9/2006 S.O. No. : N/A Drawing Number : D3397 REV.A  
 Prsht Rev. : NC Project Number : N/A  
 First Issue : N/A Type : PURCHASED PARTS Drawing Revision : A  
 Previous Run : N/A Material : N/A  
 Due Date : 3/6/2006 Qty: 16 Um: Each  
 Written By :  
 Checked & Approved By : *KG 06.02.10*  
 Comment : est rev. A new issue EC

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 D3397041 wheel ass'y



Comment: Qty.: 1.0000 Each(s)/Unit Total : 16.0000 Each(s)  
 wheel ass'y

2.0 OUTSIDE SERVICE OUTSIDE SERVICES



Comment: Sub-Contracting PURCHASING  
 Issue P/O: *00000 555* *06/02/13*  
 Order Part #4997T28 from McMaster-Carr as per Dwg D3397  
 Ensure Certificate of Conformity is attached *7b- leave to inspect*

3.0 QC6 DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK  
 Ensure certification comply to Dwg D3397

4.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1  
 1-Remove retainers and bearing from wheel, do not damage retainers, discard bearing.

2-Ship retainers to machining

5.0 LATHE CONV. CONVENTIONAL LATHE



Comment: CONVENTIONAL LATHE  
 1-Turn as per Dwg D3397

2-Debur  
 IDENTIFY AS D3397-3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: PP Date: 07/01/24  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07/01/11	5.0	Scrap 1 part, The Interin Bore was to big of .000"	Q51042	<del>Scrap not good.</del> Scrap part	21F 07/01/11	PP 07/01/11	Q51042	PP 07/01/11

NOTE: Date & initial all entries

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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WHEEL ASSEMBLY

Job Number: 25804

Part Number: D3397041

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

MS 07/01/11 29

7.0

D33975

sleeve



Comment: Qty.: 1.0000 (s)/Unit Total: 16.0000 (s)

Pick:

Qty Part number Description batch  
1 D3397-5 sleeve

B29906 → 4 B30211 → 10 PL 07-01-20

(14)

8.0

HK2820

Inventory



Comment: Qty.: 2.0000 Each(s)/Unit Total: 32.0000 Each(s)

Pick:

Qty Part number Description batch  
2 HK2820 bearing

M101988 → 12 M103170 → 16 PL 07-01-20

(14)

9.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1- Assemble bearing, sleeve and retainers as per dwg D3397

PL 07-01-20

(14)

10.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

MS 07/01/20 (14)

11.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

07/01/22 (14)

12.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

MS 07/01/24 (14)

Job Completion



U 07-01-23

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector


Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

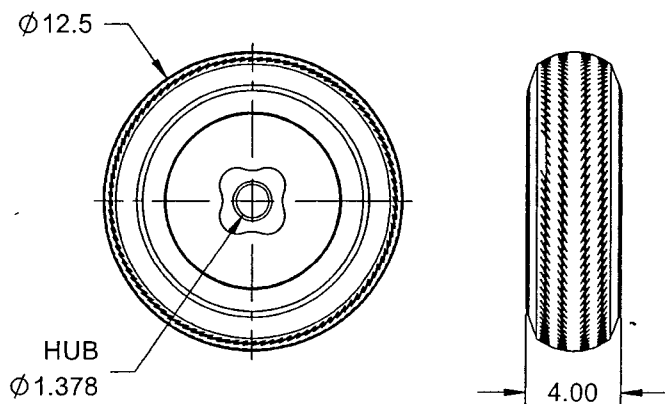
QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

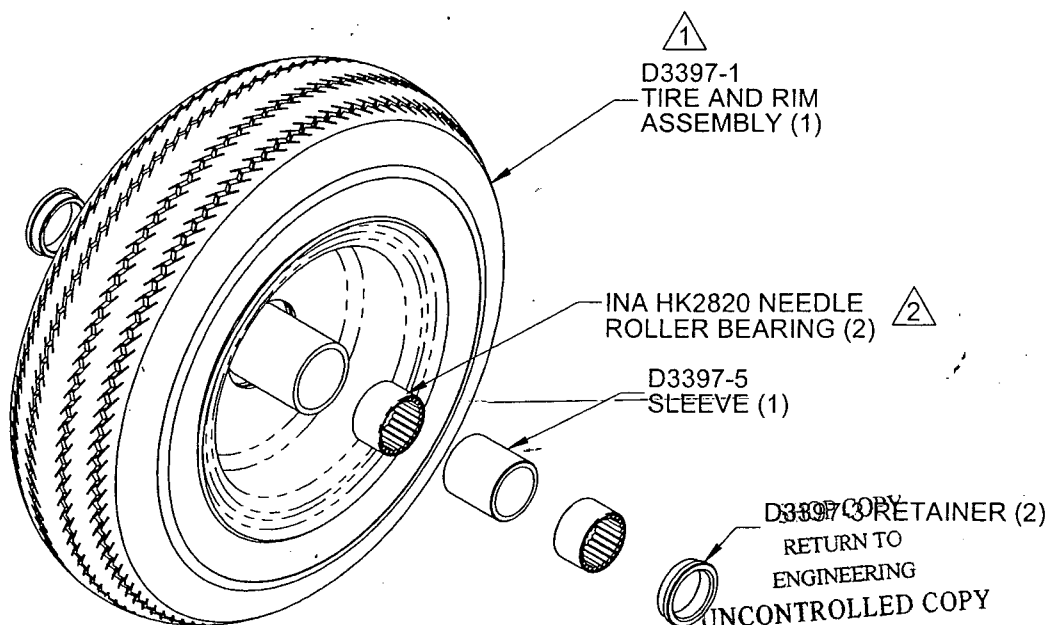
PRELIMINARY ISSUE

DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 	APPROVED	DRAWING NO. D3397	REV. A SHEET 1 OF 3
DATE 05.02.10	TITLE WHEEL ASSEMBLY		SCALE 1:8
A	05.02.10	NEW ISSUE	



WHEEL SPECIFICATIONS		
SIZE	MAXIMUM LOAD	MAXIMUM INFLATION LOAD
TIRE: Ø12.4 X 4.1 RIM: Ø6.0 X 4.0	445 LBS	50 PSI*

**1 D3397-1 TIRE AND RIM ASS'Y**



**D3397-041 WHEEL ASS'Y**

**NOTES:**

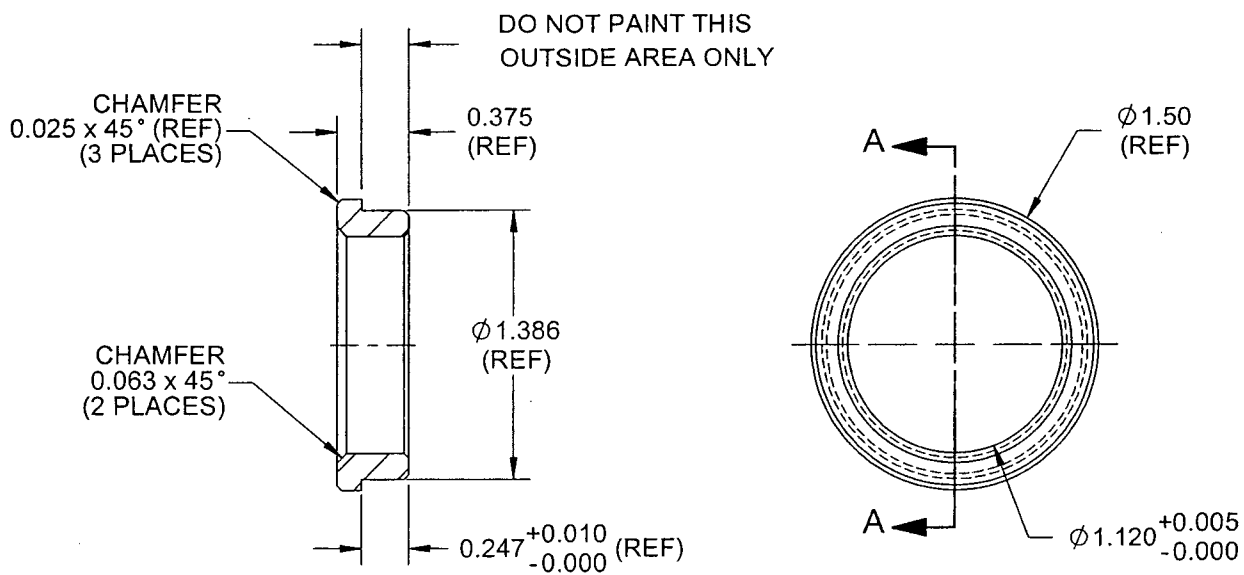
- 1) POSSIBLE SUPPLIER: McMASTER-CARR, P/N 4997T28. SCRAP ORIGINAL BEARING
- 2) POSSIBLE SUPPLIER: GENERAL BEARING
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) INFLATE TIRE TO MAX. 50 psi
- 7) APPLY RUST INHIBITOR NOT PROTECTED BY PAINT. RUST INHIBITOR P/N: LPSC30316

D3397 COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 25804

PRELIMINARY ISSUE

DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED	DRAWING NO. D3397	REV. A SHEET 2 OF 3
DATE 05.02.10	TITLE WHEEL ASSEMBLY		SCALE 1:1

## SPECIFICATION CONTROL DRAWING



SECTION A-A

### D3397-3 RETAINER

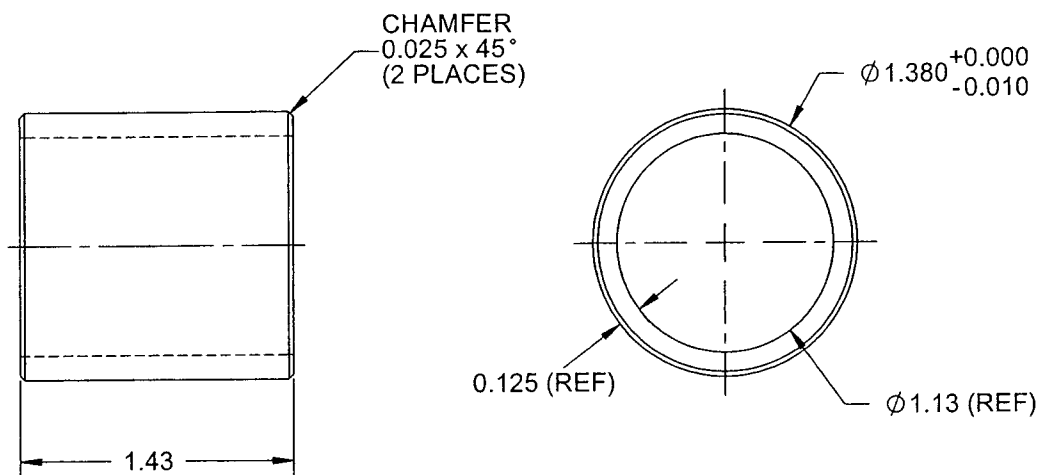
#### NOTES:

- 1) MATERIAL: REMOVE FROM McMASTER-CARR P/N 4997T28 AND MODIFY AS SHOWN
- 2) FINISH: POWDER COAT FIRE RED (REF. 4.3.5.10) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.025

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 25804

PRELIMINARY ISSUE

DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED	DRAWING NO. D3397	REV. A SHEET 3 OF 3
DATE 05.02.10		TITLE WHEEL ASSEMBLY	SCALE 1:1



**D3397-5 SLEEVE**

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 25804

**NOTES:**

- 1) MATERIAL: AISI 1020-1025 ROUND TUBING PER MIL-T-5066 OR ASTM A513-00  
MT1020 SRA OR AMS 5075 OR AMS 5077, COLD DRAWN, SEAMLESS  
(REF. DART SPEC. M1020TR1.375W.125)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.025

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2

DART AEROSPACE LTD  
1270 ABERDEEN ST  
HAWKESBURY

ON

K6A 1

**YOUR PURCHASE  
ORDER NUMBER**  
P000000555

Today's Date: 2/14/06

MCMASTER-CARR  
200 AURORA INDUSTRIAL PKWY  
AURORA OH 44202

IF THERE ARE ANY QUESTIONS ABOUT THIS  
SHIPMENT CONTACT OUR SALES DEPARTMENT  
(330)995-5500

**PAGE**  
**1 OF 1**  
**MCM NUMBER**  
4455339-02

Warehouse Location	McMaster Carr Part Number	Fill Quantity	Item Description	Your Line	Your Order	This Shipment
8-21-38 84-69	4997 T28	15 EA <i>2/4/16</i>	PNEUMATIC WHEEL WITH BOLTED RIM 12 1/4" DIA X 3.6"W, 1" AXLE, ROLLER BRNG, 440# CAP 123 RAS Balance of 1 EA shipped today from another McMaster-Carr warehouse	1	16 EA	15

830



UN

K6A 1

ORDER NUMBER

P000000555

200 AURORA INDUSTRIAL PKWY  
AURORA OH 44202IF THERE ARE ANY QUESTIONS ABOUT THIS  
SHIPMENT CONTACT OUR SALES DEPARTMENT  
(330)995-5500

PAGE

1 OF 1

MCM NUMBE

4455339-0]

Today's Date: 2/14/06

Warehouse Location	McMaster Carr Part Number	Fill Quantity	Item Description	Your Line	Your Order	This Shipment
8-101-57 82-98	4997 T28	1 EA	PNEUMATIC WHEEL WITH BOLTED RIM 22.4" DIA X 3.6"W, 1" AXLE, ROLLER BRNG, 440# CAP 8 PAK Balance of 15 EA shipped today from another McMaster-Carr warehouse  2/6/16	1	16 EA	1

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>
<b>Description:</b> Crosstube Assembly		<b>Part Number:</b>
<b>Inspection Dwg:</b>	<b>Rev:</b>	<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article
 ☐ Prototype

Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	1.50	±.030	1.502	✓		
	1.386	±.030	1.385	✓		
	1.120	±.003	1.121	✓		
	.375	±.010	.375	✓		
	.217	±.002	.217	✓		
	Ø.025 x 45°	—	Ø.025 x 45°	✓		
	Ø.063 x 45°	—	Ø.063 x 45°	✓		
SIDE B						

Measured by: <i>JF</i>	Audited by: <i>JL</i>	Prototype Approval:	N/A
Date: 07/11/11	Date: 07/10/11	Date:	N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	